




R10 Umatilla Petition

Figures from Petition Appendices

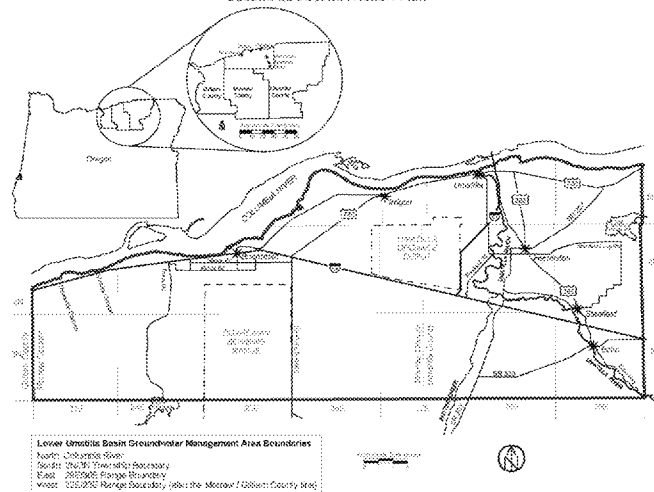
RA Briefing, 03 17 2020



Briefing paper attached to agenda.

Slides taken from APPX

Figure 2-1
Location and Boundaries of the Lower Umatilla Basin Groundwater Management Area
Second LUBGWMA Action Plan



WHO: Food & Water Watch & 8 other entities

What: largely concerned about persistent MCL exceedance of nitrates in GW & CAFOs

LUGWMA includes 562 square miles in Northern Umatilla & Morrow Counties (communities of Echo, Stanfield, Hermiston, Umatilla, Irrigon & Boardman)

87,062 people in 2 counties.

ODEQ is lead for GWMA, designated ...

Morrow & Umatilla Co Soil and Water Conservation Districts are lead agencies for developing and implementing the Second Local Action Plan, designated by ODEQ

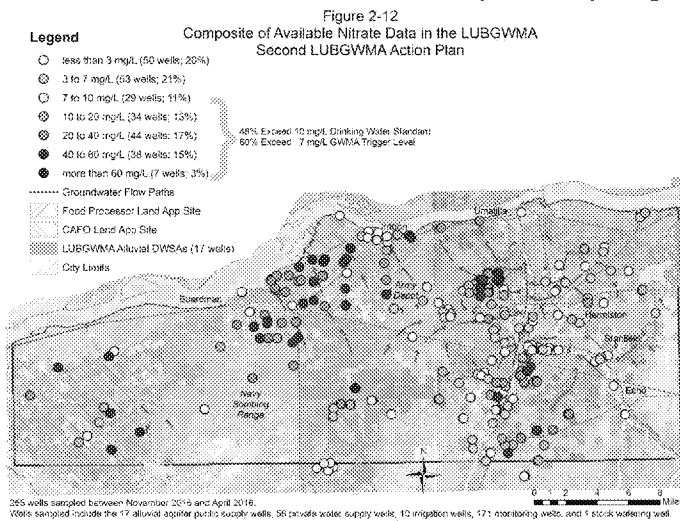
31,490 in LUBGWMA in 6 urban grown boundaries, plus

14,830 est in rural areas GWMA

Summary of Initial Review

- Petitioner concerns: CAFOs & public health risks from persistent, elevated nitrates
 - 30-year history of GWMA activity with well trends increasing in some areas
- EPA initial review: potential for imminent and substantial endangerment of drinking water
 - Looking at current status of: sources of contamination, PWSs, & private wells
- Ex. 5 Deliberative Process (DP) percent of residential drinking water wells in LUBGWMA exceed national primary drinking water standards for public water supply systems. While not enforceable at private wells, the standard for nitrate of 10 ppm is widely accepted as a public health threshold.
- Data from the LUBGWMA (1992-2016) shows domestic well water with 20 to 40 ppm nitrate
 - Unclear if/which wells have treatment, universe of wells & current status.
- The Second Action Plan (2019) for the LUBGWMA includes additional outreach on private wells
 - Should be issued for Public Comment very soon (discussed at Jan 30 GWMA meeting)
 - **Ex. 5 DP / Ex. 7(A)**
 - Opportunity for changes through public comment process to make it more effective?

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Petitioner Concerns, incl:

"48%" (high) percentage of private residents exposed to nitrates above safe levels

Proposal by ODA to permit another CAFO in location of former Lost Valley Dairy (exacerbated problems)

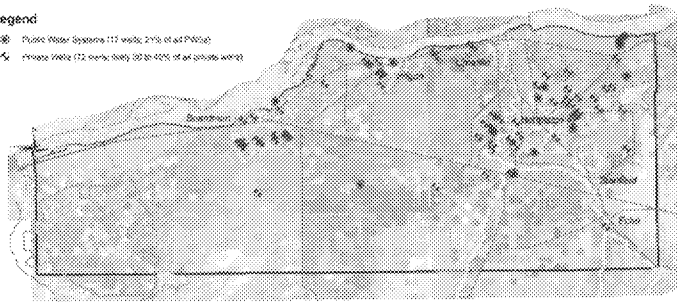
30 year problem with no progress

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Public and Private Drinking Water Wells that Have Exceeded the Nitrate Drinking Water Standard Lower Umatilla Basin Groundwater Management Area

Legend

- Public Water Systems (17 wells; 21% of all PWWS)
- Private Wells (12 wells; 66% of all private wells)



Notes:

Public wells include both active and inactive Public Water Systems monitored by Oregon Health Authority. Of the 161 PWWS in Clatsop and Clatsop Counties, 16 (10%) have exceeded the nitrate drinking water standard at least once. 17 of these wells (94%) are within the LUBGWMA. Of the 31 PWWS in the LUBGWMA, 11 (35%) have exceeded the standard at least once. Those highlighted do not have the record which includes these wells. Because some PWWS wells are only completed in the basins, the percentage of PWWS wells with high nitrate that include only the standard is likely higher than 21%.

Private wells in this map include 12 wells from the Fred Kibbe Transportation Corridor, 14 wells from the regular LUBGWMA Network wells, 7 domestic wells that were included in the 2009 Synoptic Sampling Event, and the Navy Standing Range well. Approximately 15% of the 161 PWWS wells show nitrate values over the standard. Because the 1997 database is known to contain results from treated samples and treated wells, it is likely not a good indicator of the magnitude or extent of nitrate contamination. Approximately 12% of the domestic wells in the LUBGWMA network show nitrate values over the standard. Approximately 25% of the domestic wells sampled during the 2009 Synoptic Sampling Event showed nitrate values over the standard.

See Footnotes:

Legend: "Private wells (i. Ex. 5 Deliberative Process (DP)) of all private wells" -- Ex. 5 Deliberative Process (DP) wells? NEED TO CLARIFY...

Approximately 30% of domestic wells sampled during 2009 exceeded MCL

"Approximately 42% of the domestic wells in the LUBGWMA network show nitrate above the standard"

NEED more clarity on universe of domestic wells, treatment, and current unaddressed exposure to high nitrates. NOTE: 2nd Action Plan (2019) has action directed at additional outreach/funding/awareness for private wells.



Considerations

OECA & OGC national perspective

- Similar petitions elsewhere
- Need to evaluate in timely manner

Level of effort & additional analysis

- **Ex. 5 DP / Ex. 7(A)**



Process/Next Steps ...

3/18: Meeting w/ODEQ, ODA, OHA

Ex. 5 Deliberative Process (DP)

4/2: LUBGWMA Presentations by EPA
(re: Yakima Dairies) & Food & Water
Watch (petitioners)

TBD: Letters to/from ODEQ, ODA, OHA
following 3/18 meeting

TBD: Written response to petitioner



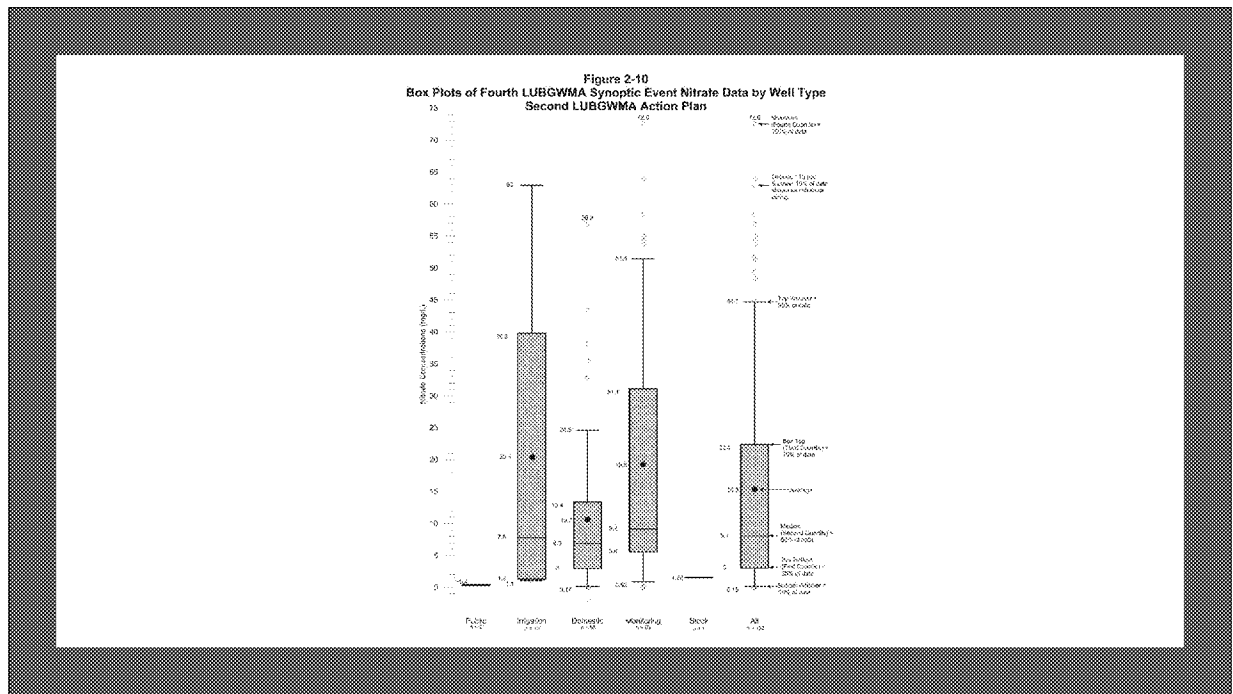
Options & Roles

well owner
ODEQ
OHA
ODA
EPA/ECAD
EPA/WD

What are public health goals?
What is GWMA currently planning
(2020 LUBGWMA Plan)?
What is regulatory authority for
private wells?

Ex. 5 DP / Ex. 7(A)

end



e.g. of data showing nitrate exceedances in domestic drinking water wells versus other monitoring wells

Need further clarification on data, information & efforts on private drinking water wells

Universe

of exceedances

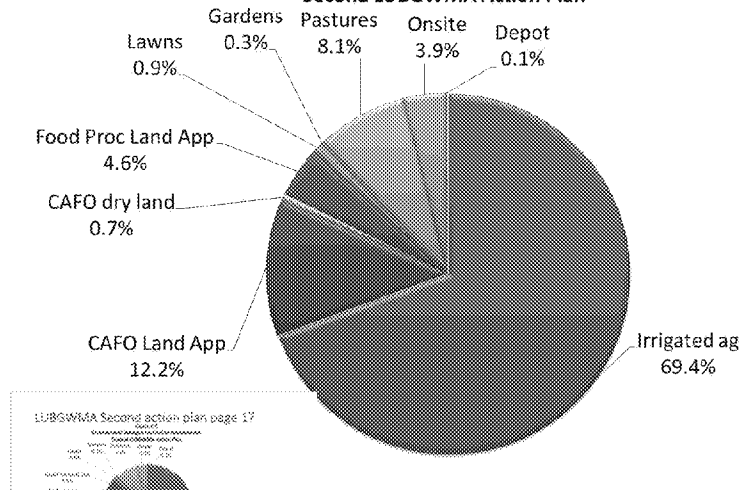
w/treatment

Assessment of unaddressed exposures.

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Figure 2-5

Estimation of Nitrogen Leached to Groundwater Second LUBGWMA Action Plan

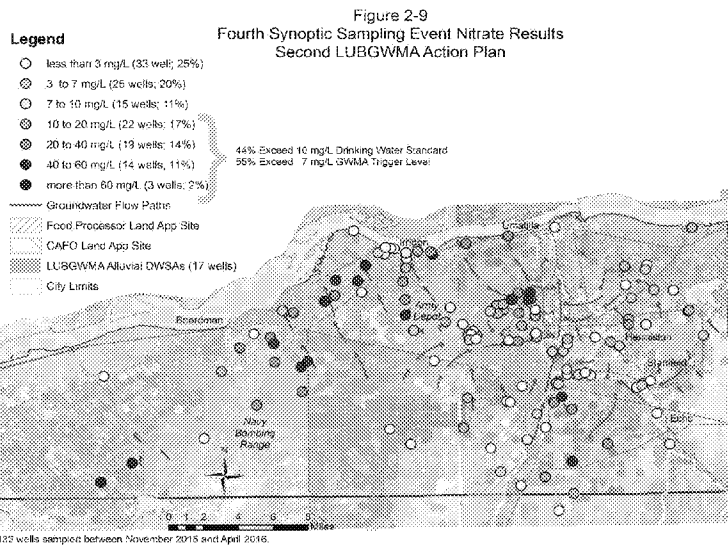


Initial Review of Petitioners Claim re: nitrates & CAFOs

Look @ SOURCES, PWs, & Private wells (w/focus on private wells/exposure)

THIS SLIDE Overview of sources Note next slide location of sources vs. well exceedances

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Overview of Sampling This slide Fourth Synoptic Sampling Event Nitrates

Previous Sampling ...

198 wells in 1990/1991 (Reconnaissance Sampling)

31 – 38 wells (LUBGWMA Well Network) - selection of wells mostly being private domestic wells, sampled 4-6 times/year

85 of 255 wells Synoptic Sampling Events) -- 1992, 2003, 2009, 2015/6

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Figure 2-3
Nitrate Leaching Potential Rating of the Lower Umatilla Basin Groundwater Management Area
Second LUBGWMA Action Plan

Legend

City Limits

NRCS Nitrate Leaching Potential Rating

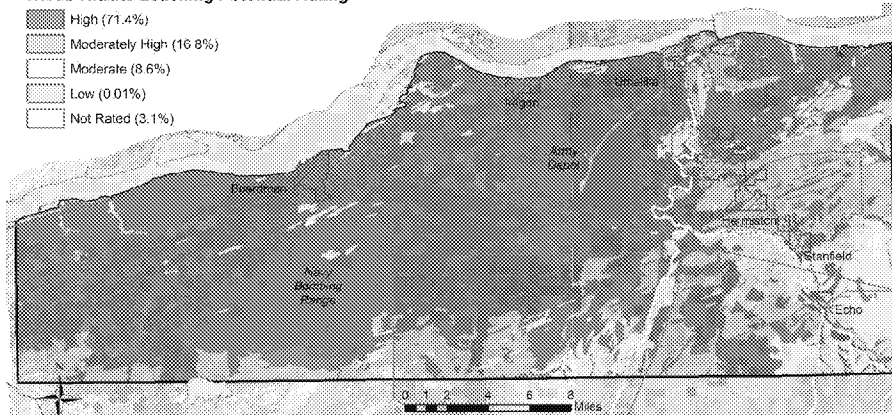
High (71.4%)

Moderately High (16.8%)

Moderate (8.6%)

Low (0.01%)

Not Rated (3.1%)



ODEQ is lead for GWMA, designated ...

Morrow & Umatilla Co Soil and Water Conservation Districts are lead agencies for developing and implementing the Second Local Action Plan, designated by ODEQ>